

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEBRASKA

BRIAN HERNANDEZ, Personal
Representative for the Estate of Saul
Hernandez;

Plaintiff,

vs.

UNION PACIFIC RAILROAD
COMPANY,

Defendant.

8:18CV62

MEMORANDUM AND ORDER

Brian Hernandez, as personal representative of the Estate of Saul Hernandez (Plaintiff) is suing the Union Pacific Railroad Co. (UPRR or Defendant), under the Federal Employers Liability Act (FELA) [45 U.S.C. § 51 et seq.](#), alleging workplace exposure to toxic substances caused or contributed to Saul Hernandez's development of lung, stomach and bone cancer¹ and his resulting death. ([Filing No. 1, at CM/ECF p. 2](#), ¶ 11). On July 25, 2019, Plaintiff designated Dr. Robert P. Gale (Dr. Gale) and Dr. Joseph R. Landolph, Jr. (Dr. Landolph) to testify as Plaintiff's expert witnesses.

Defendant UPRR moves to exclude the expert reports and testimony of Dr. Gale and Dr. Landolph. (Filing Nos. [43](#) and [45](#)). UPRR also moves for summary judgment claiming there are no genuine issues of material fact regarding exposure and causation. ([Filing No. 48](#)). For the reasons discussed below, the motions to exclude the testimony of Dr. Gale and Dr. Landolph, and UPRR's related motion for summary judgment, will be granted.

¹ Saul Hernandez was diagnosed with gastric, or "stomach," cancer in 2013 – which is the focus on the expert opinions at issue. The gastric cancer metastasized to his lungs and bones but Drs. Gale and Landolph were asked to opine only as to causation of his primary cancer, not its metastasis.

MOTIONS TO STRIKE EXPERT OPINIONS

A. Statement of Facts

Consistent with the court's local rules, only those facts cited, by page, in the parties' briefs were considered by the court in evaluating Defendant's pending motions. See NECivR 7.1(a)(2)(A) & (b)(2)(A). Those facts, assumed to be true for the purposes of this motion, are as follows:

Saul Hernandez (Saul) worked for UPRR from approximately 1980 to 1990 as a laborer and trackman. ([Filing No. 1 at CM/ECF p. 2](#), ¶ 7). The Complaint alleges that during Saul's employment, he was exposed to "various toxic substances and carcinogens including but not limited to diesel fuel/exhaust, benzene, heavy metals, creosote, manganese and rock/mineral dust and asbestos fibers." ([Filing No. 1 at CM/ECF p. 2](#), ¶ 8). Plaintiff later stipulated that he is pursuing claims related to Saul's purported workplace exposure to only diesel exhaust, asbestos, and silica dust. ([Filing No. 49 at CM/ECF p. 3](#), ¶ 4); ([Filing No. 54 at CM/ECF p. 4](#), ¶ 4); ([Filing No. 52 at CM/ECF p. 3](#), fn. 1).

Saul smoked cigarettes for at least 40 years, before quitting in September 2013. ([Filing No. 47-2](#)). Twice – in 2007 and 2010 – Saul was discovered to have infections caused by the *heliobacter pylori* bacterium after he underwent medical procedures related to abdominal pain. ([Filing No. 47-3 at CM/ECF p. 3](#), ¶ 8). Saul was diagnosed with gastric cancer in 2013 and passed away on October 9, 2014. ([Filing No. 1 at CM/ECF p. 3](#), ¶ 3).

Plaintiff designated Drs. Gale and Landolph to testify as Plaintiff's expert witnesses. Plaintiff designated Dr. Gale as a medical causation expert, "who will testify as to general and specific causation of [Saul's] injuries." ([Filing No. 47-6 at](#)

[CM/ECF p. 1](#)). Plaintiff designated Dr. Landolph as a liability expert, who “will testify, generally, as to the hazards associated with [Saul’s] crafts, including exposure to carcinogens. Specifically, Dr. Landolph will opine as to the nature of [Saul’s] exposures to various toxins present on the railroad.” ([Id](#)). Plaintiff clarifies in his briefing that Dr. Landolph’s opinion is confined to general causation. ([Filing No. 52 at CM/ECF p. 16](#)) (“As stated in his report, and indicated in the introductory statement, supra, Professor Landolph’s opinions are on general causation in this matter.”) (emphasis in original).

I. Dr. Gale

Dr. Gale is a well-qualified, highly credentialed expert in multiple areas of the medical field. He has postgraduate medical training in internal medicine, hematology, and oncology, and holds PhDs in microbiology and immunology. ([Filing No. 47-6 at CM/ECF p. 3](#)). Dr. Gale bases his expert opinion on a review of scientific studies and textbooks, a review of Dr. Landolph’s findings, a review of a “one-page summary” of the case provided to him by Plaintiff’s counsel, and on independent research he conducted online. ([Filing No. 47-4 at CM/ECF pp. 5-8](#)) (Gale Dep. 20:11-28:21); ([Filing No. 56 at CM/ECF p. 13](#)). He additionally relied upon data from the International Agency for the Research on Cancer (“IARC”), which performs studies regarding diesel exposure and reviews diesel exhaust exposure among railroad workers. ([Id](#)).

Dr. Gale also reviewed Saul’s medical records but did not recall if the records he reviewed were limited to oncology treatment or if he also reviewed records related to Saul’s previous medical history. ([Filing No. 47-4 at CM/ECF p. 7](#)) (Gale Dep. 26:6-18).

He did not review Saul's employment records. Dr. Gale testified that he "had no access to other [employment] documents so I have only the description that is provided [by Plaintiff's counsel]." ([Filing No. 47-4 at CM/ECF p. 20](#)) (Gale Dep. 80:8-10). The summary provided to Dr. Gale of Saul's employment with Union Pacific indicates only his approximate start and stop dates, his total years served, his job title(s) and his approximate age at the time of employment. ([Filing No. 47-2](#)). The summary also lists Saul's "exposure" as "diesel exhaust, benzene, heavy metals, creosote, silica dust, and gasoline vapor." ([Id.](#)). The summary does not indicate the purported level of exposure or from where this list of exposures was derived. ([Id.](#)). Dr. Gale did not know at which job site or sites Saul worked nor did he have any knowledge of Saul's specific job duties and responsibilities. ([Filing No. 47-4 at C/ECF p. 17](#)) (Gale Dep. 66:19-20). He did not speak to any of Saul's coworkers or to Saul's wife. ([Filing No. 47-4 at C/ECF p. 9](#)) (Gale Dep. 35:7-25). He did not review Saul's son's deposition testimony in this case. ([Filing No. 47-4 at C/ECF p. 9](#)) (Gale Dep. 35:4-6).

In evaluating general causation, Dr. Gale testified that he used a "more sophisticated evolution" of the Bradford Hill² causation methodology. ([Filing No. 47-4 at C/ECF p. 15](#)) (Gale Dep. 55:2-5). As described by Dr. Gale, his

process is to consider all of the evidence in favor and contrary to the opinion that an exposure was more likely than not a cause, to a reasonable degree of medical probability, a cause of cancer, first at the level of [general causation] and then at the level of whether the

² The Federal Judicial Center ("FJC") Reference Manual sets out the "Bradford Hill" factors that epidemiologists consider in assessing general causation. FJC, Reference Manual on Scientific Evidence ("Reference Manual") at 375-76 (2d ed. 2000); see also [King v. Burlington N. Santa Fe Ry Co.](#), 762 N.W.2d 24, 40-41 (Neb. 2009). The factors include (1) temporal relationship, (2) strength of the association, (3) dose-response relationship, (4) replication of the findings, (5) biological plausibility, (6) consideration of alternative explanations, (7) cessation of exposure, (8) specificity of the association, and (9) consistency with other knowledge. See Reference Manual at 375-76. The Reference Manual explains that one or more causation factors may be absent even when a true causal relationship exists. [Id.](#) at 376. Dr. Gale's testimony and report do not individually address the foregoing factors.

specific type of cancer under consideration could be caused or contributed to by exposure to the agents we're discussing.

([Filing No. 47-4 at C/ECF p. 15](#)) (Gale Dep. 55:8-22).

As to specific causation, Dr. Gale utilized the Bayesian Approach and performed a differential diagnosis.³ As required by the differential diagnosis technique, Dr. Gale considered other potential causes of Saul's stomach cancer, ruling in all causes, before ruling out the least plausible causes of the injury. [Bland v. Verizon Wireless, \(VAW\) L.L.C., 538 F.3d 893, 897 \(8th Cir. 2008\)](#). The potential causes considered by Dr. Gale included the following:

[Saul] had a colon polyp several years before his stomach cancer diagnosis. A 1st degree relative had colon cancer but there is no family history of stomach cancer, hereditary diffuse gastric cancer, hereditary non-polyposis colo-rectal cancer, familial adenomatous polyposis, Li-Fraumeni syndrome, stomach polyps, Epstein-Barr virus (EBV)-infection or common variable immune deficiency. I am unaware whether he was Tested for a somatic mutation in BRCA1 or BRCA2. He smoked an estimated 3 cigarettes per day for 40 years and had social exposure to alcohol. Mr. Hernandez is a Hispanic American. There is no history of stomach ulcers, chronic idiopathic gastritis, hypertrophic gastroscopy *Helicobacter pylori*-infection or a mucosa-associated lymphoid tissue lymphoma. His diet was not especially rich in smoked foods, salted fish and meat or pickled vegetables. He was not obese and had no prior stomach surgery.

([Filing No. 56 at CM/ECF pp. 19-20](#)).

³ "Bayesian" is defined as "being, relating to, or involving statistical methods that assign probabilities or distributions to events (such as rain tomorrow) or parameters (such as a population mean) based on experience or best guesses before experimentation and data collection and that apply Bayes' theorem to revise the probabilities and distributions after obtaining experimental data." See "Bayesian." Merriam-Webster.com Dictionary, Merriam-Webster, <https://www.merriam-webster.com/dictionary/Bayesian>. Accessed 27 May. 2020.

A "differential diagnosis [is] a technique that identifies the cause of a medical condition by eliminating the likely causes until the most probable cause is isolated." [Bland v. Verizon Wireless, \(VAW\) L.L.C., 538 F.3d 893, 897 \(8th Cir. 2008\)](#).

Based on the data he reviewed and considered, Dr. Gale opines that the alleged toxins have the capacity to cause stomach cancer in persons with the same exposure as Saul and that “it is more likely than not, to a reasonable degree of medical probability, the occupational exposures of Mr. Saul Hernandez to silica dust and diesel engine exhaust particles and exposure to other carcinogens were more likely than not a cause of his developing stomach cancer.” ([Filing No. 47-6 at CM/ECF p. 6](#)).

II. Dr. Landolph

Dr. Landolph is also a qualified, highly credentialed scientist who is a tenured associate professor – teaching microbiology, pathology, toxicology, and chemical carcinogenesis. ([Filing No. 47-9 at CM/ECF p. 5](#)). He is a member of the University of Southern California/Norris Comprehensive Cancer Center at USC’s Keck School of Medicine. ([Filing No. 47-9 at CM/ECF p. 7](#)). In addition, Dr. Landolph is an active researcher – working as a chemist, biochemist, genetic toxicologist, cell and molecular toxicologist, and molecular carcinogenesis researcher. ([Filing No. 47-9 at CM/ECF p. 5](#)). He has Bachelor of Science degree in Chemistry and a PhD in Chemistry. ([Filing No. 47-9 at CM/ECF pp. 5-6](#)). Dr. Landolph lists a litany of other achievements including “scientific publications, teaching activities, consultation activities, and administrative activities” related to his work in toxicology, molecular biology, carcinogenesis, and related disciplines. ([Filing No. 47-9 at CM/ECF p. 13](#)).

According to his report, Dr. Landolph used “conventional methodologies of science” in forming his opinion. ([Filing No. 47-9 at CM/ECF p. 17](#)). He based his opinion on a review of scientific studies, textbooks, and his own previous studies and writings. ([Filing No. 47-8 at CM/ECF pp. 17-18](#)) (Landolph Dep. 68:9 - 71:7).

Like Dr. Gale, he relied on IARC studies regarding diesel exposure and reviews diesel exhaust exposure among railroad workers. ([Filing No. 47-9 at CM/ECF p. 26](#)). He also reviewed Saul's medical records. ([Filing No. 47-9 at CM/ECF p. 19](#)).

Dr. Landolph has never worked for or visited a railyard and has no knowledge of working conditions in the railyards where Saul worked. ([Filing No. 47-8 at CM/ECF p. 4](#)) (Landolph Dep. 16:3-10). Also, like Dr. Gale, he did not have Saul's employment records but reviewed a limited summary that includes Saul's dates of employment, job title(s), approximate age at employment, and his purported "exposures." ([Filing No. 47-2](#)); see also ([Filing No. 47-8 at CM/ECF p. 2](#)) (Landolph Dep. 7:11-18).

Dr. Landolph opines

...to a reasonable scientific probability that diesel particulate matter and silica dust are capable of causing and/or contributing to the development of cancers in humans, including gastric cancer, [sic] because diesel exhaust contains many carcinogens [BaP, benzene, carcinogenic PAHs, nitrated PAHs, formaldehyde, acrolein, and TCDD]. It is my opinion that when Mr. Saul Hernandez, a brakeman and laborer, inhaled diesel exhaust and silica dust present at the railroad workers' work sites, this allowed the diesel exhaust and its benzene, BaP, other PAHs, nitrated PAHs, and 2,3,7,8-TCDD (dioxin), and crystalline silica and silica dust, and gasoline (containing benzene) to penetrate to his respiratory system, oral cavity, nasal cavity, pharyngeal area, stomach, and circulatory system[.]

([Filing No. 47-6 at CM/ECF p. 73](#), ¶ G). Dr. Landolph's findings are premised on combining data from a study of Canadian railroad workers with an equation created by the California Office of Environmental Health Hazard Assessment (OEHHA). ([Filing No. 47-8 at CM/ECF p. 33](#)) (Landolph Dep. at 132:8-15); see also ([Filing No. 49 at CM/ECF p. 5](#), ¶ 18); ([Filing No. 54 at CM/ECF p. 5](#), ¶ 18). Dr. Landolph took the estimated diesel exhaust exposure of the Canadian workers and placed

it within the framework of “default factors” created by the OEHHA. ([Filing No. 47-8 at CM/ECF p. 33](#)) (Landolph Dep. at 131:10-25). That allowed Dr. Landolph to calculate “general” exposure of a hypothetical railroad worker. ([Filing No. 47-8 at CM/ECF p. 33](#)) (Landolph Dep. at 131:24-25). Dr. Landolph then considered the OEHHA’s “cancer potency factor” which is “telling you how potent [the alleged toxins are] in causing cancer...[.]” ([Filing No. 47-8 at CM/ECF p. 116:1-2](#)). Dr. Landolph assumed that Saul would have worked 50 hours a week, five days per week during his ten years of employment with UPRR, and was exposed toxins at a level consistent with Dr. Landolph’s hypothetical OEHHA calculation.⁴ ([Filing No. 47-8 at CM/ECF p. 34](#)) (Landolph Dep. at 133:11-21).

Based on that framework and his assumptions, Dr. Landolph calculated that if one million people were subjected to the same exposures as Mr. Hernandez, there would be 197 more instances of cancer than there would in an absence of those purported exposures. ([Filing No. 47-8 at CM/ECF p. 35](#)) (Landolph Dep. at 138:11-16).

B. Standard of Review

Plaintiff alleges a FELA claim against UPRR, claiming his cancer resulted “in whole or in part from the negligence” of the railroad. [45 U.S.C. § 51](#). The statute imposes upon employers a continuous duty to provide a reasonably safe place to work. [Cowden v. BNSF Ry. Co.](#), 690 F.3d 884, 889 (8th Cir. 2012). The FELA is to be liberally construed, but it is not a workers’ compensation statute, and the basis of liability is “negligence, not the fact that injuries occur.” [Consolidated Rail Corp. v. Gottshall](#), 512 U.S. 532, 543 (1994). To prevail under the FELA, Plaintiff

⁴ Saul’s weekly work schedule is purely speculative. Dr. Landolph testified that had not reviewed anything specific regarding Saul’s dates or hours worked. He “assumed” for the purposes of performing his calculation that he worked 50 hours per week, over a five-day work week. ([Filing No. 47-8 at CM/ECF p. 34](#)) (Landolph Dep. at 133:11-21).

must prove the elements of a negligence claim: duty, breach, foreseeability, and causation. [Crompton v. BNSF Ry. Co.](#), 745 F.3d 292, 296 (7th Cir. 2014); [Tufariello v. Long Island R. Co.](#), 458 F.3d 80, 87 (2d Cir. 2006).

The Court applies a relaxed standard of causation under the FELA. [CSX Transp., Inc. v. McBride](#), 564 U.S. 685 (2011); The test is simply whether employer negligence played any part, even the slightest, in producing the injury for which damages are sought. *Id.* This modified standard of causation does not, however, change the Daubert analysis. *See* [McLaughlin v. BNSF Railway Company](#), 2020 WL 641729, at *4 (D. Neb. Feb. 11, 2020). (“The admissibility of expert testimony under Rule 702 and Daubert is a distinct inquiry from the relaxed causation standard applied to FELA cases.”); [Steggall v. BNSF Ry. Co.](#), 2019 WL 1492579, at *3 (D. Neb. Apr. 4, 2019) (“The Daubert standard governs the application of Rule 702 and applies to FELA and non-FELA actions.”); [In re Conrail Toxic Tort Fela Litig.](#), 1998 WL 465897, at *6 (W.D. Pa. Aug. 4, 1998) (holding Daubert is properly applied in a FELA case); [Hose v. Chi. Nw. Transp. Co.](#), 70 F.3d 968, 972 (8th Cir. 1995) (applying Daubert in a FELA action challenging plaintiff’s proposed expert testimony).

The admissibility of expert testimony is governed by Rule 702 of the Federal Rules of Evidence which states:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

[Fed. R. Evid. 702](#). The court must assume a gatekeeping function to ensure that “any and all scientific testimony or evidence admitted is not only relevant, but reliable.” [Daubert, 509 U.S. at 589](#). To carry out this function, the court must “make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.” [Kumho Tire Co. v. Carmichael, 526 U.S. 137, 152 \(1999\)](#); see also [Am. Auto Ins. Co. v. Omega Flex, Inc., 783 F.3d 720, 722 \(8th Cir. 2015\)](#).

A witness can be qualified as an expert by “knowledge, skill, experience, training, or education,” [Fed.R.Evid. 702](#), and it is the responsibility of the trial judge to determine whether a particular expert has sufficient specialized knowledge to assist jurors in deciding the specific issues in the case. See [Kumho Tire, 526 U.S. at 156, 119 S.Ct. 1167](#).

[Wheeling Pittsburgh Steel Corp. v. Beelman River Terminals, Inc., 254 F.3d 706, 715 \(8th Cir. 2001\)](#). The party offering the challenged testimony bears the burden of establishing admissibility by a preponderance of the evidence. [Lauzon v. Senco Prods., Inc., 270 F.3d 681, 686 \(8th Cir. 2001\)](#) (citing [Daubert, 509 U.S. at 592](#)).

Daubert established a non-exclusive checklist for trial courts to use in assessing the reliability of expert testimony, including whether the theory or technique can and has been tested, whether it has been subjected to peer review, whether there is a high known or potential rate of error, and whether the theory or technique enjoys general acceptance within a relevant scientific community. See [U.S. v. Holmes, 751 F.3d 846, 850 \(8th Cir. 2014\)](#) (citing [Daubert, 509 U.S. at 592-94](#)). And for the purposes of evaluating the relevance of expert testimony, the Court must determine whether the expert’s reasoning or methodology was applied

properly to the facts at issue.⁵ [Daubert](#), 509 U.S. at 580. To that end, expert testimony that is speculative, unsupported by sufficient facts, or contrary to the facts of the case, is inadmissible. [Marmo v. Tyson Fresh Meats, Inc.](#), 457 F.3d 748, 757 (8th Cir. 2006).

C. Discussion

In general, Dr. Landolph and Dr. Gale opine that the alleged toxins – diesel exhaust, silica dust, and asbestos – are capable of causing cancer; however, to meet the burden of establishing causation, even under the relaxed FELA standard, Plaintiff “must prove not only that an alleged toxin is capable of causing an injury, but that the toxin caused this particular injury.” [McLaughlin](#), 439 F. Supp. 3d at 1178 (citing [Myers v. Ill. Cent. R.R. Co.](#), 629 F.3d 639, 643-44 (7th Cir. 2010)) (emphasis added).

Put differently, proof of causation in a FELA case requires evidence showing two types of causation: (1) general causation—that the identified toxins have the capacity to cause the injury suffered by the decedent in persons subject to the same exposure level as the decedent—and (2) specific causation—that the toxin was a cause of this decedent’s injury. [Bettisworth v. BNSF Ry. Co.](#), 2020 WL 3498139, at *6 (D. Neb. June 29, 2020) (citing [Mattis v. Carlon Elec. Products](#), 295 F.3d 856, 860-61 (8th Cir. 2002)). Plaintiff must have reliable expert evidence of both types of causation. [Brooks v. Union Pac. R. Co.](#), 620 F.3d 896, 899 (8th Cir.

⁵ Here, there is some question as to whether the opinions in Dr. Gale’s report truly represent his reasoning and methodology. At his deposition, Dr. Gale testified that the document produced by Plaintiff’s counsel as his expert report was not the same report he prepared and provided to Plaintiff’s counsel. He further indicated that portions of the document purporting to be his “report” were “discordant” with the report he drafted. And, shown his signature on the report served by Plaintiff’s counsel, Dr. Gale testified that he had never signed it: “It’s not that I don’t recall [signing it]. I did not [sign it].” ([Filing No. 47-4 at CM/ECF pp. 2-3](#)) (Gale Dep. 8:17-11:7). Because his report will be excluded for other reasons, the court will not strike it based on this testimony. But as to future cases, Plaintiff’s counsel is admonished to serve only those expert reports unequivocally prepared and signed by the expert.

2010); see also [Moody v. Maine Cent. R.R. Co.](#), 823 F.2d 693, 695 (1st Cir.1987); [Claar v. Burlington N.R.R. Co.](#), 29 F.3d 499, 504 (9th Cir.1994).

I. General Causation

The parties vehemently disagree as to whether either expert opinion reliably opines on general causation. Defendant argues that neither Dr. Gale nor Dr. Landolph confined his opinion to gastric cancer, i.e. “the injury suffered by” Saul. [Mattis](#), 295 F.3d at 860 (general causation requires proof that the toxin at issue caused the specific type of injury the decedent suffered). Instead, Defendant asserts, both experts’ opinions are based on a generalized calculation of the risk of developing any type of cancer – which, Defendant argues, is impermissibly broad. Defendant further argues that even if the experts had sufficiently limited their opinions to gastric cancer, they both testified that they did not know Saul’s specific level of exposure to the toxins at issue and thus could not opine on exposure risk to a person subject to that same unknown exposure level. *Id.*

Plaintiff argues that the experts’ general causation opinions are sound. As to Dr. Landolph, Plaintiff argues that he supports “this opinion that diesel exhaust is a multi-organ carcinogen” based on a “multitude of peer-reviewed studies which link diesel exhaust and its subcomponents to the development of cancer in various other parts of the human body.” ([Filing No. 52 at CM/ECF p. 21](#)). In his deposition, Dr. Landolph testified that diesel exhaust “could damage the stomach and the colon...[.]” (*Id.*) (citing Landolph Dep. at 42:23-43:13) (emphasis added).

The court agrees with Defendant – Dr. Landolph does not seem to sufficiently link the alleged toxic exposure to Saul’s specific cancer type cancer (gastric). As noted above, Dr. Landolph based his opinion on figures derived from the OEHHA, relying specifically on the OEHHA’s “cancer potency factor” to

determine whether certain toxin exposures have the potential to cause cancer. ([Filing No. 47-8 at CM/ECF p. 29-30](#)) (Landolph Dep. 116:22-117:3).

Dr. Landolph testified that “I don’t know at the time they did this calculation of cancer potency factors whether gastric cancer was in there or not. I don’t know that answer.” [Filing No. 47-8 at CM/ECF p. 29-30](#)) (Landolph Dep. 116:22-117:3). He also testified that his calculated 197 instances of cancer per million included all cancer types, and he did not know how many of those 197 would be gastric. ([Filing No. 47-8 at CM/ECF p. 31](#)) (Landolph Dep. 121:18-122:3).

Still, Dr. Landolph maintains that diesel exhaust causes cancer in a “multitude of different organs” and that supports an opinion that it causes gastric cancer. He opined that:

Are we now seeing that, indeed, now that lung cancer was established and IARC called lung cancer and bladder cancer as being induced by diesel exhaust, what about these other tumors? And from what I see, my opinion now is that, yes, diesel exhaust is a multi-organ carcinogen in humans, and it needs to be controlled much more carefully, and it is a known human carcinogen.

And it doesn't surprise me because it can cause lung cancer because of inhalation. It can also, once it gets into the lung, be moved by what's called mucociliary escalator, which has cilia that are hairs that beat and mucus, which is sticky, and the diesel will stick to that, and come back up into the mouth and then be swallowed and go down to the stomach so that it can damage the esophagus potentially, and it could damage the stomach and the colon as well. And there is more and more data to support this, so I believe that diesel has crossed the line, and this is an observation as much as an opinion. The observations make my opinion because I have worked on a number of these cases now, and I see more and more organs being affected in terms of incurring carcinogenesis by contact with diesel, which is called a known human carcinogen.

([Filing No. 47-8 at CM/ECF p. 11](#)) (Landolph Dep. 42:23-43:21). Thus, while Dr. Landolph appears confident that the research supports diesel exhaust as a cause of lung cancer, his opinion as to which other organs it may affect is, at best, murky.

Even under the FELA causation standard, that is not enough. See [Edmonds v. Ill. Cent. Gulf R.R. Co.](#), 910 F.2d 1284, 1288 (5th Cir. 1990) (“plaintiff must show more than a possibility that a causal relation existed”); [Mayhew v. Bell S.S. Co.](#), 917 F.2d 961, 963 (6th Cir. 1990) (quoting [Moody v. Me. Cent. R.R. Co.](#), 823 F.2d 693, 695 (1st Cir. 1987)) (“[A]lthough a [FELA] plaintiff need not make a showing that the employer's negligence was the sole cause, there must be a sufficient showing (i.e. more than a possibility) that a causal relation existed.”).

Dr. Landolph has not sufficiently tailored his opinion to Saul’s actual injury. His general causation opinion is insufficiently reliable and will be excluded for failure to reliably opine as to the injury alleged – gastric cancer.

Whether Dr. Gale sufficiently opined as to general causation is a closer question. To be sure, there were issues with portions of his report and testimony.

For example, Dr. Gale reviewed and relied upon Dr. Landolph’s report as it relates “excess cancer risk” related to diesel exhaust exposure and notes that the findings relate to “all cancers” and not specifically to gastric cancer. ([Filing No. 47-4 at CM/ECF p. 36](#)) (Gale Dep. 141:8-15). He could similarly not say whether asbestos exposure was a cause of gastric cancer:

MS. O’BRIEN: Is there a known dose or amount of exposure to asbestos that is more likely than not to cause stomach cancer?

DR. GALE: It's generally -- well, firstly, I wasn't asked to opine about more likely than not to be the cause. I was asked whether something could be a cause. I just want to clarify that. It's generally assumed that a fiber of asbestos can cause cancer. And I can't answer specifically can cause gastric cancer.

([Filing No. 47-4 at CM/ECF p. 27](#)) (Gale Dep. 105:4-13).

However, Dr. Gale did provide and rely upon myriad articles that speak specifically to gastric cancer and its causation or association with the alleged toxins. See, e.g., ([Filing No. 47-4 at CM/ECF p. 18](#)) (Gale Dep. 70:11-15; 77-7-12). While Defendant takes issue with Dr. Gale's scientific articles, ([Filing No. 44 at CM/ECF p. 26](#)), arguing that none definitively assert that diesel exhaust, asbestos, or silica dust cause gastric cancer, the court is unwilling to go so far. Dr. Gale clearly attempted to tailor his opinion to the cancer at issue, and the court will not exclude his report for failure to specifically address Saul's alleged injury.

Defendant further argues that Dr. Gale's opinion on general causation should be excluded for failure to specifically indicate the level at which the alleged toxic exposure has the capacity to cause gastric cancer.⁶ ([Filing No. 44 at CM/ECF p. 28](#)). More specifically, Defendant claims that Dr. Gale could not sufficiently identify the level of exposure to asbestos, silica dust, or diesel fuel necessary to cause stomach cancer. And, Defendant asserts that Dr. Gale did not have sufficient information about Saul's exposure to the alleged toxins, either – including a lack of information related to his actual work site, his actual job description, his actual hours worked, and the like. ([Filing No. 44 at CM/ECF pp. 5-6](#)). Defendant claims that Dr. Gale could not possibly opine as to the alleged toxins' capacity to

⁶ Defendant also made this argument as to Dr. Landolph. However, the court did not reach that argument, as it excluded Dr. Landolph's general causation opinion on other grounds.

cause gastric cancer in “persons subject to the same exposure level” as Saul because he knew neither the level generally necessary nor any facts to determine or estimate the level actually—or even possibly—experienced by the decedent. [Mattis](#), 295 F.3d at 860.

This court has previously excluded expert opinions for that very reason. [See McLaughlin](#), 439 F. Supp. 3d at 1181 (expert witness “cannot possibly link” the plaintiff’s alleged diesel exhaust exposure to his cancer if the expert “does not know what levels of exposure have been shown to cause [that] cancer”); [Byrd v. Union Pac. R.R. Co.](#), 2020 WL 1848496, at *6 (D. Neb. Apr. 13, 2020) (“an expert cannot with reasonable certainty or probability link an individual’s alleged diesel exhaust exposure to his [] cancer if the expert does not know what level of exposure has been shown to cause [that] cancer”); [But see Langrell v. Union Pac. R.R. Co.](#), 2020 WL 3037271, at *8 (D. Neb. June 5, 2020) (allowing expert testimony of general causation based on “materials furnished by the plaintiff’s attorney, a review of the literature, and his extensive knowledge, experience, and expertise” even where expert did not have access to the specific details of plaintiff’s job duties, work schedule, or site of employment).

The court need not and will not reach this argument. As will be discussed in detail below, regardless of whether Dr. Gale’s opinion is sufficient as to general causation, he has clearly failed to reliably opine as to specific causation. And because Dr. Landolph’s opinion was confined to general causation, and both general and specific causation are required, Dr. Gale’s specific causation opinion was necessary for Plaintiff to prove his case. Thus, regardless of whether the court were to here adopt the reasoning in [McLaughlin](#) and [Byrd](#) or the contrary reasoning [Langrell](#) on the above-issue, Plaintiff’s lack of evidence on specific causation discussed below is alone fatal, and summary judgment will be granted.

II. Specific Causation

As noted above, Dr. Gale performed a “differential diagnosis” or “differential etiology” in order to form his opinion on specific causation in this case. ([Filing No. 56 at CM/ECF p. 18](#)). And in general, medical causation opinions based upon differential diagnoses are sufficiently reliable as to pass muster under Daubert. [Turner v. Iowa Fire Equip. Co.](#), 229 F.3d 1202, 1208 (8th Cir. 2000).

Differential diagnosis required Dr. Gale to “identif[y] the cause of a medical condition by eliminating the likely causes until the most probable cause is isolated.” [Bland](#), 538 F.3d at 897 (citing [Westberry v. Gislaved Gummi AB](#), 178 F.3d 257, 262 (4th Cir.1999)). This is achieved by ruling in all scientifically plausible causes and then ruling out the least plausible until the most likely cause remains. [Kudabeck v. Kroger Co.](#), 338 F.3d 856, 860-61 (8th Cir. 2003).

Under the FELA, an expert need not isolate the “most likely” or “proximate” cause of a plaintiff or decedent’s injury to establish causation under FELA’s relaxed standard. [McBride](#), 564 U.S. at 685. However, even though the causation standard is lower than in other negligence actions, a doctor performing a differential diagnosis is, at minimum, required to consider all potential causes before opining as to specific causation in a FELA case. ([Filing No. 56 at CM/ECF p. 21](#)) (quoting [Guinn v. AstraZeneca Pharm. LP](#), 602 F.3d 1245, 1253 (11th Cir. 2010) (“while a reliable differential diagnosis need not rule out all possible alternative causes, it must at least consider other factors that could have been the sole cause of the plaintiff’s injury”) (emphasis added); see also [Brown v. Burlington N. Santa Fe Ry. Co.](#), 765 F.3d 765, 773 (7th Cir. 2014); [In re Conrail Toxic Tort Fela Litig., No. CIV. A 94-11J](#), 1998 WL 465897, at *6 (W.D. Pa. Aug. 4, 1998); [In re Viagra Prod. Liab. Litig.](#), 658 F. Supp. 2d 950, 959 (D. Minn. 2009) (holding a failure to “rule out” other possible causes will render the differential diagnosis scientifically unreliable)).

It is undisputed that in both 2007 and 2010, Saul had infections caused by *heliobacter pylori* and underwent medical procedures related to abdominal pain, ([Filing No. 47-3 at CM/ECF p. 3-4](#)), and he was diagnosed with gastric cancer in 2013. ([Filing No. 1 at CM/ECF p. 3](#), ¶ 3). And, the parties agree that *heliobacter pylori* is a cause of gastric cancer. ([Filing No. 47-4 at CM/ECF p. 43](#)) (Gale Dep. 171:22-25) (transcribing Dr. Gale's testimony that *heliobacter pylori* is a known cause of gastric cancer); ([Filing No. 47-3 at CM/ECF p. 4](#)) (Klute Dec. ¶ 11) ("*Helicobacter pylori* infection...is a well- established risk factor for gastric cancer, and in particular for the specific type that Mr. Hernandez suffered from – diffuse gastric cancer"). Yet here, Dr. Gale either never received for consideration or did not consider the medical records and information regarding Saul's *heliobacter pylori* infections—a known cause of gastric cancer. Instead, Dr. Gale's report indicates that Saul had "no history of stomach ulcers, chronic idiopathic gastritis, hypertrophic gastroscopy *Helicobacter pylori*-infection or a mucosa-associated lymphoid tissue lymphoma." ([Filing No. 47-5 at CM/ECF p. 7](#)). At his deposition, he testified that he "wasn't asked to opine about *Helicobacter* [sic]. That's not a task I was asked. I could consider it. I was unaware of it, but I could consider it if you ask me." ([Filing No. 47-4 at CM/ECF p. 50](#)) (Gale Dep. 197:6-9).

When a Daubert motion is filed, this court serves as the gatekeeper to assure the opinions advanced by experts are sufficiently reliable to be admissible. [Daubert](#), 509 U.S. at 589. Under the current circumstances, the court must consider whether Dr. Gale approached the causation issue in this case with "the same level of intellectual rigor that characterizes" the practice of a medical professional. [Kumho](#), 526 U.S. at 152. Expert testimony that is based on incorrect assumptions of facts material to performing a differential diagnosis is inadmissible. [Marmo](#), 457 F.3d at 757. Here, Dr. Gale not only failed to rule out *heliobacter pylori* as the sole cause of Saul's gastric cancer, his report and testimony indicate that

he was not even aware of Saul's *heliobacter pylori* infections. (Filing No. 47-4 at CM/ECF p. 48) (Gale Dep. 184:12-16). Dr. Gale's failure to even consider *heliobacter pylori* precludes the possibility that Dr. Gale performed a proper differential etiology and renders his causation opinion scientifically unreliable. [Bland, 538 F.3d at 897](#) (affirming exclusion of expert's differential diagnosis testimony under Daubert because the expert failed to properly investigate and consider other possible causes of injury). Dr. Gale's opinion will be excluded as it relates to specific causation.

MOTION FOR SUMMARY JUDGMENT

UPRR moved for summary judgment, arguing Plaintiff cannot make a *prima facie* FELA case without proving causation. The railroad argues the plaintiff must offer expert testimony to support a claim of medical causation, specifically that Dr. Landolph's and Dr. Gale's expert opinions on general causation and Dr. Gale's expert opinion on specific causation are unreliable and inadmissible and as such, UPRR is entitled to summary judgment.

1. Standard of Review

"The court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." [Fed. R. Civ. P. 56\(c\)\(2\)](#). In ruling on a motion for summary judgment, the court must view the evidence in the light most favorable to the non-moving party, giving that party the benefit of all inferences that may be reasonably drawn from the evidence. [Dancy v. Hyster Co., 127 F.3d 649, 652-53 \(8th Cir. 1997\)](#). The court does not weigh evidence in the summary judgment record to determine the truth of any factual issue. It merely determines whether there is evidence creating a genuine issue for trial. [Bell v. Conopco, Inc., 186 F.3d 1099, 1101 \(8th Cir. 1999\)](#).

The moving party bears the burden of showing there are no genuine issues of material fact. [Celotex Corp. v. Catrett](#), 477 U.S. 317, 322 (1986). However, “a party opposing a properly supported motion for summary judgment ‘may not rest upon the mere allegations or denials of [its] pleading, but must set forth specific facts showing that there is a genuine issue for trial.’” [Anderson v. Liberty Lobby, Inc.](#), 477 U.S. 242, 248 (1986) (quoting [First Nat’l Bank of Ariz. v. Cities Serv. Co.](#), 391 U.S. 253, 288 (1968)). Credibility determinations, the weighing of the evidence, and the drawing of legitimate inferences from the facts are left for trial. “The evidence of the non-movant is to be believed, and all justifiable inferences are to be drawn in [its] favor.” [Anderson](#), 477 U.S. at 251-52.

2. Discussion

To be successful on the FELA claim, Plaintiff must prove causation. Expert testimony is required to establish medical causation in a FELA case. [Brooks v. Union Pac. R. Co.](#), 620 F.3d 896, 899 (8th Cir. 2010). Dr. Landolph has not provided reliable scientific opinions, as required by [Daubert](#), on general causation. Dr. Gale has likewise failed to provide reliable scientific opinions, as required by [Daubert](#), on specific causation. Without a reliable opinion on both general and specific causation, Plaintiff cannot provide his FELA case. As such, the motion for summary judgment will be granted.

Accordingly, IT IS ORDERED:

- (1) Defendant’s Motion to Exclude Dr. Landolph ([Filing No. 45](#)) is granted.
- (2) Defendant’s Motion to Exclude Dr. Gale ([Filing No. 43](#)) is granted as it relates to specific causation, and denied as moot as it relates to general causation.
- (3) Defendant’s Motion for Summary Judgment ([Filing No. 48](#)) is granted.
- (4) The parties’ Joint Motion to Stay ([Filing No. 61](#)) is denied as moot.

(5) A separate judgment will be entered.

Dated this 14th day of August, 2020.

BY THE COURT:

s/ Cheryl R. Zwart
United States Magistrate Judge